

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A temperature simulating device for simulating the energetic material temperature within ordnance wherein the energetic material has thermal properties and a cross-sectional area and the ordnance has housing, comprising:

an energetic material assembly comprising:

a grain simulant having thermal properties, being ~~substantially~~ inert, wherein the thermal properties of the grain simulant approximate the thermal properties of the energetic material;

means for measuring temperature imbedded into the grain simulant;

means for recording temperature data received from the temperature measuring means; and,

means for housing the energetic material assembly wherein the housing means simulate the housing of the ordnance.

2. (Original) The temperature simulating device of claim 1, wherein the grain simulant comprises a rubber material.

3. (Original) The temperature simulating device of claim 2, wherein the rubber material comprises hydrin rubber.

4. (Original) The temperature simulating device of claim 2, comprising a plurality of temperature measuring means imbedded into the grain simulant.

5. (Original) The temperature simulating device of claim 4, comprising four temperature measuring means imbedded into the grain simulant.

6. (Original) The temperature simulating device of claim 4, wherein the temperature measuring means comprise thermocouples.

7. (Original) The temperature simulating device of claim 1, further comprising a grain simulant cross-sectional area approximate to the energetic material cross-sectional area.

8. (Original) The temperature simulating device of claim 7, further comprising first and second ends of the grain simulant and an insulating material substantially covering the first and second ends.

9. (Original) The temperature simulating device of claim 8, wherein the insulating material comprises a polystyrene foam.

10. (Original) The temperature simulating device of claim 9, wherein the housing means comprises:

- a rocket motor tube;
- two end plates substantially covering the insulating material; and,
- two retaining rings that attach the end plates to the rocket motor tube.

11. (Original) The temperature simulating device of claim 10, wherein the rocket motor tube comprises a shortened rocket motor tube.

12. (Original) The temperature simulating device of claim 8, further comprising:  
an external power source for the temperature recording means connected to an end plate; and,

data output connections for the temperature recording means connected to an end plate.

13. (Currently Amended) A method of simulating the temperature of the energetic material temperature within ordnance wherein the energetic material has

thermal properties and a cross-sectional area and the ordnance has housing, comprising the steps of:

providing a device comprising an energetic material assembly comprising a grain simulant having thermal properties, being substantially inert, wherein the thermal properties of the grain simulant approximate the thermal properties of the energetic material, means for measuring temperature imbedded into the grain simulant, means for recording temperature data received from the temperature measuring means, and, means for housing the energetic material assembly wherein the housing means simulate the housing of the ordnance;

providing means for data accessing for data compiled by the temperature recording means; and,

initiating the data accessing means.

14. (Original) The method of simulating temperature of claim 13, wherein the data accessing means comprises a location remote to the device.